



California Regional Water Quality Control Board

Los Angeles Region



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Protection

Over 51 Years Serving Coastal Los Angeles and Ventura Counties
Recipient of the 2001 *Environmental Leadership Award* from Keep California Beautiful

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Arnold Schwarzenegger
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CALIFORNIA ENVIRONMENTAL QUALITY ACT REQUIREMENTS

The California Regional Water Quality Control Board, Los Angeles Region (hereinafter referred to as the Regional Board) is the Lead Agency for evaluating the environmental impacts of the proposed amendment to the *Water Quality Control Plan for the Los Angeles Region (Basin Plan)*. The Regional Board is proposing a **“Basin Plan Amendment for Implementing the Early Life Stages Provision of the Freshwater Ammonia Objectives.”** The Secretary of Resources has certified the basin planning process as exempt from certain requirements under the California Environmental Quality Act (CEQA), including preparation of an initial study, a negative declaration and environmental impact report (California Code of Regulations, title 14, section 15251). As this proposed amendment to the Basin Plan is part of the basin planning process, the environmental information developed for and included with the amendment is considered “functionally equivalent” to an initial study, negative declaration, and environmental impact report.

Any regulatory program of the Regional Board certified as functionally equivalent, however, must satisfy the documentation requirements of California Code of Regulations, title 23, section 3777(a) which requires the following:

- A written report providing:
 - a description of the proposed activity;
 - reasonable alternatives to the proposed activity; and
 - mitigation measures to minimize any significant adverse impacts.
- A completed environmental checklist that includes:
 - a checklist of environmental impacts;
 - a discussion of the environmental evaluation; and
 - a determination with respect to significant environmental impacts.

The attached checklist and the staff report that supports the **Basin Plan Amendment for Implementing the Early Life Stages Provision of the Freshwater Ammonia Objectives** fulfill the requirements specified under section 3777, subdivision (a).

I. Description of Proposed Activity

The Basin Plan designates beneficial uses of waterbodies, establishes water quality objectives for the protection of these beneficial uses, and outlines a plan of implementation for maintaining and enhancing water quality.

California Environmental Protection Agency



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Our mission is to preserve and enhance the quality of California's water resources for the benefit of present and future generations.

The goal of this amendment is to revise the method for implementing the early life stages provision of the freshwater ammonia objectives in the Basin Plan in order to be fully protective of all waterbodies where early life stages of fish are present. For purposes of environmental review, the "project" is solely the revisions to the Basin Plan to revise the method for implementing the early life stages provision of the freshwater ammonia objectives. In assessing potential environmental impacts, Regional Board staff considered the changes in the environment likely as a result of the amendment. A CEQA Scoping meeting was conducted to determine appropriate areas of inquiry.

**Environmental
Impacts**
YES MAYBE NO

1. Earth. Will the proposal result in:

- | | |
|---|----|
| a. Unstable earth conditions or in changes in geologic substructures? | No |
| b. Disruptions, displacements, compaction or overcoming of the soil? | No |
| c. Change in topography or ground surface relief features? | No |
| d. The destruction, covering or modification of any unique geologic or physical features? | No |
| e. Any increase in wind or water erosion of soils, either on or off the site? | No |
| f. Changes in deposition or erosion of beach sands, or changes in siltation, deposition or erosion which may modify the channel of a river or stream or the bed of the ocean or any bay, inlet or lake? | No |
| g. Exposure of people or property to geologic hazards, such as earthquakes, landslides, mudslides, ground failure, or similar hazards? | No |

2. Air. Will the proposal result in:

- | | |
|---|----|
| a. Substantial air emissions or deterioration of ambient air quality? | No |
| b. The creation of objectionable odors? | No |
| c. Alteration of air movement, moisture or temperature, or any change in climate, either locally or regionally? | No |



**Environmental
Impacts**
YES MAYBE NO

3. Water. Will the proposal result in:

- | | |
|--|-------|
| a. Changes in currents, or the course of direction or water movements, in either marine or fresh waters? | No |
| b. Changes in absorption rates, drainage patterns, or the rate and amount of surface water runoff? | No |
| c. Alterations to the course of flow of flood waters? | No |
| d. Change in the amount of surface water in any water body? | No |
| e. Discharge into surface waters, or in any alteration of surface water quality, including but not limited to temperature, dissolved oxygen, or turbidity? | Maybe |
| f. Alteration of the direction or rate of flow of ground waters? | No |
| g. Change in the quantity or quality of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations? | Maybe |
| h. Substantial reduction in the amount of water otherwise available for public water supplies? | No |
| i. Exposure of people or property to water related hazards such as flooding or tidal waves? | No |

4. Plant Life. Will the proposal result in:

- | | |
|---|----|
| a. Change in the diversity of species, or number of any species of plants (including trees, shrubs, grass, crops, microflora and aquatic plants)? | No |
| b. Reduction of the numbers of any unique, rare or endangered species of plants? | No |
| c. Introduction of new species of plants into an area, or in a barrier to the normal replenishment of existing species? | No |



**Environmental
Impacts**

YES MAYBE NO

- d. Reduction in acreage of any agricultural crop? No
- 5. Animal Life. Will the proposal result in:**
- a. Change in the diversity of species, or numbers of any species of animals (birds, land animals including reptiles, fish and shellfish, benthic organisms, insects or microfauna)? No
- b. Reduction of the numbers of any unique, rare or endangered species of animals? No
- c. Introduction of new species of animals into an area, or result in a barrier to the migration or movement of animals? No
- d. Deterioration to existing fish or wildlife habitat? No
- 6. Noise. Will the proposal result in:**
- a. Increases in existing noise levels? No
- b. Exposure of people to severe noise levels? No
- 7. Light and Glare. Will the proposal:**
- a. Produce new light or glare? No
- 8. Land Use. Will the proposal result in:**
- a. Substantial alteration of the present or planned land use of an area? No
- 9. Natural Resources. Will the proposal result in:**
- a. Increase in the rate of use of any natural resources? No
- b. Substantial depletion of any nonrenewable natural resource? No
- 10. Risk of Upset. Will the proposal involve:**
- a. A risk of an explosion or the release of hazardous substances (including, but not limited to: oil, pesticides, chemicals or radiation) in the event of an accident or upset conditions? No



**Environmental
Impacts**
YES MAYBE NO

11. Population. Will the proposal:

- a. Alter the location, distribution, density, or growth rate of the human population of an area? No

12. Housing. Will the proposal:

- a. Affect existing housing, or create a demand for additional housing? No

13. Transportation/Circulation. Will the proposal result in:

- a. Generation of substantial additional vehicular movement? No
- b. Effects on existing parking facilities, or demand for new parking? No
- c. Substantial impact upon existing transportation systems? No
- d. Alterations to present patterns of circulation or movement of people and/or goods? No
- e. Alterations to waterborne, rail or air traffic? No
- f. Increase in traffic hazards to motor vehicles, bicyclists or pedestrians? No

14. Public Service. Will the proposal have an effect upon, or result in a need for new or altered governmental services in any of the following areas:

- a. Fire protection? No
- b. Police protection? No
- c. Schools? No
- d. Parks or other recreational facilities? No
- e. Maintenance of public facilities, including roads? No



**Environmental
Impacts**

YES MAYBE NO

- f. Other governmental services? No
- 15. Energy. Will the proposal result in:**
- a. Use of substantial amounts of fuel or energy? No
- b. Substantial increase in demand upon existing sources of energy, or require the development of new sources of energy? No
- 16. Utilities and Service Systems. Will the proposal result in a need for new systems, or substantial alterations to the following utilities:**
- a. Power or natural gas? No
- b. Communications systems? No
- c. Water? No
- d. Sewer or septic tanks? Maybe
- e. Storm water drainage? No
- f. Solid waste and disposal? No
- 17. Human Health. Will the proposal result in:**
- a. Creation of any health hazard or potential health hazard (excluding mental health)? No
- b. Exposure of people to potential health hazards? No
- 18. Aesthetics. Will the proposal result in:**
- a. The obstruction of any scenic vista or view open to the public? No
- b. The creation of an aesthetically offensive site open to public view? No



**Environmental
Impacts**
YES MAYBE NO

19. Recreation. Will the proposal result in:

- a. Impact upon the quality or quantity of existing recreational opportunities? No

20. Archeological/Historical. Will the proposal:

- a. Result in the alteration of a significant archeological or historical site structure, object or building? No

21. Mandatory Findings of Significance

Potential to degrade: Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? No

Short-term: Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals? (A short-term impact on the environment is one which occurs in a relatively brief, definitive period of time, while long-term impacts will endure well into the future.) No

Cumulative: Does the project have impacts which are individually limited, but cumulatively considerable? (A project may impact on two or more separate resources where the impact on each resource is relatively small, but where the effect of the total of those impacts on the environment is significant.) No

Substantial adverse: Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? No



Expand on all “YES” and “MAYBE” answers given to the preceding questions in regard to environmental impacts. The evaluation shall consider whether the environmental impact indicated will have a substantial, adverse change in any of the physical conditions within the area affected by the activity. In addition, the evaluation should discuss environmental effects in proportion to their severity and probability of occurrence. (Use additional pages if necessary.)

3. WATER. WILL THE PROPOSAL RESULT IN:

- e. Discharge into surface waters, or in any alteration of surface water quality, including but not limited to temperature, dissolved oxygen, or turbidity?** **Maybe**

This amendment will result in greater protection for aquatic life (more stringent objectives) at temperatures below 15 degrees C where and when early life stages of fish are present for 222 out of the 328 waterbodies in Region 4. For only 1 water body will the objectives be less stringent (Conejo Creek). Of the 295 waterbodies to which there are no major POTW discharges, the amendment will result in more stringent objectives for 207 of the waterbodies during the specified conditions. For the other 88 waterbodies the objectives will remain the same. Of the 33 waterbodies to which major POTW discharge the amendment will result in more stringent objectives for 15 waterbodies, no change for 17 waterbodies and less stringent objectives for one water body (Conejo Creek).

Increased concentrations of NH_3 and NH_4^+ will be allowed in surface waters (at temperatures below 15 degrees C) in only one water body in Region 4, i.e. Conejo Creek (hydrologic unit 403.63). This is appropriate due to the absence of early life stages of fish during the winter period, and recent freshwater ammonia objectives had assumed the presence of early life stages.

The differences between the ELS present versus ELS absent objectives are greatest at the lowest temperatures (<7 degrees C) and pH values (6.5). However, >95% of the temperature and pH data in Region 4 falls above 10 degrees C and pH 8, so the greatest differences would rarely apply.

At the average pH value in our region of 8 and at temperatures below 15 degrees, statistics on the differences in total ammonia concentration between the ELS present objectives versus ELS absent objectives are:

Average Difference = 0.76 mg N/L (nitrogen/liter)

Minimum Difference = 0.09

Maximum Difference = 1.52 mg N/L (nitrogen/liter)

Standard deviation = 0.50.

As detailed in the staff report accompanying the proposed Basin Plan amendment the revised objectives remain designed to fully protect early life stages of fish.



- g. Change in the quantity or quality of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?** **Maybe**

This amendment will result in greater protection for aquatic life (more stringent objectives) at temperatures below 15 degrees C where and when early life stages of fish are present for 222 out of the 328 waterbodies in Region 4. Therefore there would be an increase in the quality of groundwaters where these 222 waterbodies are hydrologically connected to the groundwaters.

For only one water body will the objectives be less stringent (Conejo Creek). If Conejo Creek and the underlying groundwater are hydrologically connected, increased concentrations of NH_3 and NH_4^+ could occur in ground waters. However, in ground water this would be readily converted to nitrate (NO_3^-) as a result of the nitrification of NH_4^+ to NO_3^- . In addition, the Basin Plan also includes a narrative objective, which states "in order to protect underlying groundwater basins, ammonia shall not be present at levels that when oxidized to nitrate, pose a threat to groundwater."

16. Utilities and Service Systems. Will the proposal result in a need for new systems, or substantial alterations to the following utilities:

- d). Sewer or septic tanks?** **Maybe**

This Basin Plan amendment may result in the need for additional treatment of wastewater. This amendment specifies an increased number of waterbodies requiring the lower ELS present objectives. The decrease in the ammonia objective if a water body is treated as ELS present is not great enough to require additional treatment (beyond minor adjustments to treatment plant operations) if POTWs have in place nitrification and denitrification (N/DN). N/DN is capable of eliminating ammonia to approximately 1.0 - 2.0 mg total ammonia as N/L (nitrogen/liter). The ELS present objective in the typical pH range for waterbodies in Region 4 is above 2.0 mg total ammonia as N/L (nitrogen/liter) and so would be adequately treated by N/DN. The need for N/DN was prompted by the requirements of the 1994 Basin Plan ammonia objectives. In addition, Water Effects Ratios (WERs) are being developed for many inland POTWs. If approved through the Basin Plan amendment process, these WERs would establish less stringent site-specific objectives (SSOs) by a ratio of approximately 1.4 - 2.3. The cushion provided by the SSOs would generally be greater than the decrease in the ammonia objectives as a result of waterbodies being re-categorized ELS present for all temperature and pH scenarios. Therefore the economic cost of this amendment should not be significant.

Properly sited septic systems will be able to adequately treat wastewater to the lower objectives required by the ELS present provision. Properly sited systems provide an adequate treatment zone that allows for the conversion of ammonia (NH_3 and NH_4^+) to nitrate (NO_3).



On the basis of this initial evaluation:

X I find the proposed Basin Plan amendment could not have a significant effect on the environment.

_ I find that the proposed Basin Plan amendment could have a significant adverse effect on the environment. However, there are feasible alternatives and/or feasible mitigation measures that would substantially lessen any significant adverse impact. These alternatives are discussed in the attached written report.

_ I find the proposed Basin Plan amendment may have a significant effect on the environment. There are no feasible alternatives and/or feasible mitigation measures available which would substantially lessen any significant adverse impacts. See the attached written report for a discussion of this determination.

DATE: 12/08/03

Dennis A. Dickerson
Executive Officer